

REMARKS

In response to the Office Action mailed on September 30, 2005, the Applicants respectfully request reconsideration of the rejections set forth by the Examiner under 35 U.S.C. § 112, § 102, and § 103. Claims 2, 6, 17, and 21 have been canceled. Claims 31-39 have been added.

Support for the amendments to claim 1 can be found, for example, at page 5, lines 17-19 (polyvinyl chloride resin); page 6, line 12 (epoxidized soybean oil and zinc heat stabilizer); page 6, lines 18-20 (dry expanded microspheres and glass microspheres); and page 4, line 29 (modeling compound comprising .3% or less of water). Support for the amendment to claim 5 can be found, for example, at page 6, line 12 and claim 5 as originally filed (zinc heat stabilizer). Support for the amendments to claim 9 can be found, for example, at page 6, line 12 (epoxidized soybean oil and zinc stabilizer); page 6, lines 18-20 (dry expanded microspheres and glass microspheres); page 4, line 29 (.3% or less of water); lines 33-1, bridging pages 4 and 5 (percent of reagents); and claim 9 as originally filed. Support for the amendment to claim 14 can be found, for example, at page 6, line 12 (epoxidized soybean oil; lines 33-1, bridging pages 4 and 5 (percent of reagents); and claim 14 as originally filed. Support for the amendment to claim 15 can be found, for example, at page 6, line 12 (zinc stabilizer); and claim 15 as originally filed. Support for the amendments to claim 20 can be found, for example at page 5, lines 17-19 (polyvinyl chloride resin); and page 7, lines 8-15 (wherein "overmixing after the addition of microspheres must be avoided"). Support for new claims 31 and 39 can be found, for example, at page 5, lines 23-29 (primary

plasticizer) and the enclosed document entitled "Preliminary Risk Characterization for Acetyl Tributyl Citrate Used as a Plasticizer in Polyvinyl Chloride Children's Toys" (February 1999) ("Acetyl Tributyl Citrate document"). This Acetyl Tributyl Citrate document clearly identifies Acetyl Tributyl Citrate as being well known as a plasticizer at the time of filing the present application. The Examiner is additionally referred to the Bibliography of Reports section of the document (for example, Castle *et al.*, 1988, "Migration of the plasticizer acetyltributyl citrate from plastic film into foods during microwave cooking and other domestic use." *J. Food. Prot.* 51(12):916-919)). Support for new claims 32, 34, and 38 can be found, for example, at page 6, lines 26-31 (rheology modifiers, thixotropic agent and organic filler/organophilic clay). Support for new claims 33, and 35-37 can be found, for example, at page 6, lines 11-14.

35 U.S.C. § 112

Claims 1, 3-8, 20, 22-25, and 27-30 were rejected under 35 U.S.C. § 112, first paragraph, as not being enabling for any resins other than polyvinyl chloride which are suitable for the claimed modeling compositions. Applicants respectfully traverse this rejection to the extent that it is applied to the newly submitted claims.

The Applicants respectfully submit that the amendments to independent claims 1, 9, and 20 overcome this rejection. Each of claims 1, 9, and 20 have been amended to provide polyvinyl chloride as the resin in the claimed modeling compounds. The applicants have provided written support for each of the amended claims (see foregoing section).

35 U.S.C. § 102

Claims 1-19 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,658,969 to Gerace ("Gerace"). Applicants respectfully traverse this rejection to the extent that it is applied to the newly submitted claims.

Gerace is directed to plastisol coatings and adhesives, wherein microspheres are wetted with a surfactant to prevent undesirable agglomeration. The claims as currently amended are directed to modeling compounds having 0.3% or less of water, wherein the compounds comprise epoxidized soybean oil. Gerace does not contemplate expoxidized soybean oil, nor does Gerace contemplate modeling compounds having 0.3% or less of water.

The examiner has asserted that the amounts of the components disclosed in the examples and throughout Gerace satisfy the claimed amounts. Respectfully, the applicants do not find any basis for this assertion. For example, Example 1 of Gerace discloses 12 kg of microspheres, 1.2 kg of surfactant, 25 kg of DINP, 32.5 kg of PVC, 2.4 kg of CaO, 1.2 of TiO, 0.6 kg of CZ, an additional 23.1 kg of DINP, 1.2 kg of Versamid 66, and 0.6 kg of silica, for a total of 99.8 kilograms. *The 32.5 kilograms of polyvinyl chloride used in this Example equates to ~32.6% of the total weight (as compared to the presently claimed 40-60%).*

Furthermore, Example 2 of Gerace is directed to 15 kg of cross-linked nitrile rubber, 20 kg of DINP, 15 kg of additional DINP, 7 kg of hollow thermoplastic microspheres, 5 kg of DINP, 0.6 kg of fluoro-aliphatic non-ionic surfactant, 15 kg of PVC, 17.4 kg of DINP, 2 kg of Cao, 0.6 kg of INTERSTAB CZ, 1.2 kg of TiO₂, and 1.2 kg of VERSAMID 66, for a total

of 100 kg. *The 15 kg of polyvinyl chloride in Example 2 of Gerace equates to 15% of the total weight (as compared to the presently claimed 40-60%).*

The applicants respectfully submit that there is nothing in Gerace to suggest the use of 40-60% polyvinyl chloride.

35 U.S.C. § 103

Claims 1-3, 6-11, 13, 14, 16-22, and 25-30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over SE 907036 ("SE") in combination with U.S. Patent No. 5,607,993 to Christy ("Christy") or U.S. Patent No. 5,506,280 to Miller et al. ("Miller"). Applicants respectfully traverse this rejection to the extent that it is applied to the newly submitted claims as now presented.

SE specifically teaches polyvinyl chloride in a weight percent of 67-75. There is absolutely no teaching of using polyvinyl chloride in a weight percent of 40-60 (as presently claimed). Furthermore, neither Christy nor Miller disclose polyvinyl chloride in the presently claimed weight percentages. Lastly, Miller teaches away from the present claims by stating "[A]n even more preferred range of water content in compositions of the inventions is from about 43% to about 49% by weight" (see column 4, lines 56-58).

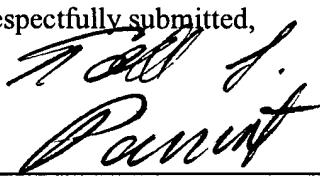
Independent claim 20 has been amended to address the problem of over-mixing after the addition of microspheres and the subsequent generation of excess heat which can degrade the final product and shorten its half-life (see, for example, page 7, lines 10-13). The claim calls for the addition of microspheres as a last step in order to minimize excessive mixing. By eliminating a mixing step after the addition of microspheres (i.e. the addition and mixing of a rheology modifier), excessive heat is mitigated.

Appl. No. 10/721,617
Amdt. Dated March 16, 2006
Reply to Office Action Mailed on September 30, 2005

The CAFC held in Teleflex, Inc. v. KSR Int'l Co., (applicant acknowledges that the opinion is nonprecedential), there to be a requirement that the prior art contain a suggestion to combine. Teleflex, Inc. v. KSR Int'l Co., 119 Fed. Appx. 282; 2005 U.S. App. LEXIS 176. We respectfully traverse the assertion that the presently claimed invention is obvious based upon the cited SE 907036 in combination with U.S. Patent No. 5,607,993 to Christy or U.S. Patent No. 5,506,280 to Miller et al. (combinations of existing elements are nonobvious, and therefore patentable, unless some specific "teaching, suggestion, or motivation" to combine those elements is found in the cited references). None of the presently cited 35 U.S.C. 103 references contain a suggestion to combine. " [C]ombining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability, the essence of hindsight." In re Dembiczak, 50 USPQ2d, 1614, 1617 (1999).

Applicants respectfully submit that all claims are in condition for allowance.

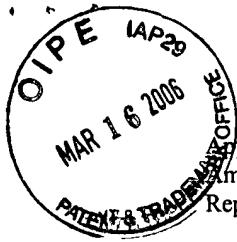
Respectfully submitted,



(Reg. #26,494)

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A handwritten signature in black ink that reads "Todd S. Parkhurst".

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